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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/563,901

06/05/2006

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13156-00034-US

5655

23416 7590 12/08/2009
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EXAMINER

AUGHENBAUGH, WALTER

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

12/08/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/563,901	Applicant(s) HESSE ET AL.	
	Examiner WALTER B. AUGHENBAUGH	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2009 and 02 December 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) 7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 4, 2009 has been entered.

Acknowledgement of Applicant's Amendments

2. The amendment made in claim 1 in the Amendment filed November 4, 2009 has been received and considered by Examiner.

Specification

3. The amendment filed November 4, 2009 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the addition of "of the polyamide mixture" to claim 1. See 35 U.S.C. 112, first paragraph, rejection of claim 1 made of record below.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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5. Claims 1-6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The addition of “of the polyamide mixture” to claim 1 constitutes new matter. The recitation of a maximum solution viscosity of 140 ml/g for a mixture of polyamides is not supported in the specification as originally filed. Page 2, lines 24-26 discusses this maximum value as that of single polyamides, not a blend of polyamides. Support for the combination of limitations of (1) a mixture of at least two polyamides with different solution viscosities and (2) where the mixture (as opposed to one or each polyamide) has a solution viscosity of less than 140 ml/g does not appear to be supported in the specification as originally filed.

Claims 2-6 are rejected because they depend upon claim 1.

6. Claims 1-6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The property to which Applicant intends to refer by the phrase “solution viscosity” is not adequately described in the specification: the pertinent art appears to use the phrase “solution viscosity” only when referring to a property having no units (which is referred to in the pertinent art as “solution viscosity” or “relative solution viscosity”), while the claim recites that the

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“solution viscosity” is less than 140 ml/g (which has units of ml/g). See, for example, USPN 7,491,792, USPN 7,049,391, and USPN 5,728,104.

In regard to USPN 7,491,792, see col. 4, lines 56-57 (which refers to the ISO 307 standard) and col. 8, lines 12-19 (also refers to the ISO 307 standard and discloses unit-less values).

In regard to USPN 7,049,391, see col. 7, lines 1-4 (which refers to the ISO 307 standard) and Table 1 in col. 11 and 12 (the second column discloses unit-less values for solution viscosity [see terminology used at col. 7, lines 1-4]).

In regard to USPN 5,728,104, see col. 2, line 64-col. 3, line 9 (which refers to the ISO 307 standard and discloses unit-less values for relative solution viscosity).

Since Applicant’s usage of terminology (“solution viscosity”) and units (ml/g) appears to be inconsistent with the accepted conventions in the art for the reasons provided above (“solution viscosity” and “relative solution viscosity” do not have units of ml/g), clarification is required as to the nature of the property that Applicant intends to recite.

The European Standard ISO 307 that Applicant has included in the Amendment filed November 4, 2009 supports this rejection. Applicant appears to equate solution viscosity with viscosity number (page 3 of Amendment filed November 4, 2009, last full paragraph), but page 6 of the standard shows that these two properties are different properties: the formula for solution viscosity is directly below the formula for viscosity number. Applicant argues that viscosity number has the units that are recited, but the claim does not claim viscosity number: it claims solution viscosity. The ISO Standard shows that viscosity number is a different property from solution viscosity (page 6: the formula for solution viscosity is directly below the formula for

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viscosity number); so by reciting solution viscosity, Applicant is reciting a different property from viscosity number (which has the claimed units of ml/g). The units that are recited do not match up with the property that is recited for the reasons provided above. Clarification and/or correction is required.

Claims 2-6 are rejected because they depend upon claim 1.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regard to claim 1, the exact property to which Applicant intends to refer by the phrase “solution viscosity” cannot be ascertained. The pertinent art appears to use the phrase “solution viscosity” only when referring to a property having no units (which is referred to in the pertinent art as “solution viscosity” or “relative solution viscosity”), while the claim recites that the “solution viscosity” is less than 140 ml/g (which has units of ml/g). See, for example, USPN 7,491,792, USPN 7,049,391, and USPN 5,728,104.

In regard to USPN 7,491,792, see col. 4, lines 56-57 (which refers to the ISO 307 standard) and col. 8, lines 12-19 (also refers to the ISO 307 standard and discloses unit-less values).

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In regard to USPN 7,049,391, see col. 7, lines 1-4 (which refers to the ISO 307 standard) and Table 1 in col. 11 and 12 (the second column discloses unit-less values for solution viscosity [see terminology used at col. 7, lines 1-4]).

In regard to USPN 5,728,104, see col. 2, line 64-col. 3, line 9 (which refers to the ISO 307 standard and discloses unit-less values for relative solution viscosity).

Since Applicant's usage of terminology ("solution viscosity") and units (ml/g) appears to be inconsistent with the accepted conventions in the art for the reasons provided above ("solution viscosity" and "relative solution viscosity" do not have units of ml/g), clarification and/or correction is required as to the exact property that Applicant intends to recite.

The European Standard ISO 307 that Applicant has included in the Amendment filed November 4, 2009 supports this rejection. Applicant appears to equate solution viscosity with viscosity number (page 3 of Amendment filed November 4, 2009, last full paragraph), but page 6 of the standard shows that these two properties are different properties: the formula for solution viscosity is directly below the formula for viscosity number. Applicant argues that viscosity number has the units that are recited, but the claim does not claim viscosity number: it claims solution viscosity. The ISO Standard shows that viscosity number is a different property from solution viscosity (page 6: the formula for solution viscosity is directly below the formula for viscosity number); so by reciting solution viscosity, Applicant is reciting a different property from viscosity number (which has the claimed units of ml/g). The units that are recited do not match up with the property that is recited for the reasons provided above. Clarification and/or correction is required.

Claims 2-6 are rejected because they depend upon claim 1.

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Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 1-4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell et al. (USPN 6,228,912), as evidenced by Christ et al. (USPN 5,567,797).

In regard to claim 1, Campbell et al. teach a casing (housing) for an electronic device comprising a cathode-ray tube (col. 17, line 58-col. 18, line 21: Campbell et al. teach that the casing is suitable for use as a monitor housing [col. 18, line 9], and that computer monitors include cathode ray tubes [col. 17, line 65-67]). Campbell et al. teach that the casing comprises a heat-resistant, flame-retardant thermoplastic (see, for example, col. 1, lines 44-67), and that the casing is injection molded (see, for example, col. 17, lines 58-65). Campbell et al. teach that the thermoplastic material has a polyamide-based structure because Campbell et al. teach that a polyamide is a suitable component of the thermoplastic material (col. 2, lines 7-21). Campbell et al. teach that nylon-6 and nylon-6,6 are suitable polyamides for the thermoplastic material

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(col. 2, lines 7-20). Nylon-6 and nylon-6,6 have relative solution viscosities in sulfuric acid of 1.79 and 1.78, respectively, as evidenced by Christ et al. (col. 6, lines 22-23 and 47-48).

While Campbell et al. teach that for resinous compositions such as polyamide compositions, there is often an improvement in melt flow and/or other physical properties when one molecular weight grade of at least one resinous constituent is combined with a relatively lower molecular weight grade of similar resinous constituent (col. 6, lines 34-41, 46-56 and 62-66), Campbell et al. fails to explicitly teach an embodiment where the thermoplastic material comprises a mixture of at least two polyamides with different solution viscosities, where the mixture has a solution viscosity of less than 140 ml/g. Campbell et al. also do not explicitly teach an embodiment where a casing corresponding to the invention of Campbell et al. actually comprises a cathode-ray tube or a flat screen.

However, since Campbell et al. teach that a polyamide is a suitable component of the thermoplastic material (col. 2, lines 7-21) and that for resinous compositions such as polyamide compositions, there is often an improvement in melt flow and/or other physical properties when one molecular weight grade of at least one resinous constituent is combined with a relatively lower molecular weight grade of similar resinous constituent (col. 6, lines 34-41, 46-56 and 62-66), it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a blend of one molecular weight grade of at least one polyamide and a relatively lower molecular weight grade of another (similar) polyamide (such as nylon-6 and nylon-6,6) in order to improve the melt flow and/or other physical properties of the composition as taught by Campbell et al. Since nylon-6 and nylon-6,6 have relative solution viscosities in

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sulfuric acid of 1.79 and 1.78, respectively, as evidenced by Christ et al. (col. 6, lines 22-23 and 47-48), a mixture of these polyamides would have a solution viscosity of about 1.79.

Furthermore, since Campbell et al. teach that the casing is suitable for use as housings for various electronic devices (col. 17, line 58-col. 8, line 21) such as a monitor housing (col. 18, line 9) and that computer monitors include cathode ray tubes (col. 17, line 65-67), it would have been obvious to one of ordinary skill in the art at the time the invention was made to have housed an electronic device comprising a cathode-ray tube, or a flat screen computer monitor (which is also a computer monitor), since the composition of Campbell et al. is suitable for use as a housing for various electronic devices such as a monitor housing as taught by Campbell et al.

In regard to claim 2, Campbell et al. teach that nylon-6 is a suitable material for the polyamide (col. 2, lines 7-20), so it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used nylon-6 as one of the polyamides of the blend of polyamides taught by Campbell et al. as discussed above in regard to claim 1.

In regard to claim 3, Campbell et al. teach that nylon-6,6 is a suitable material for the polyamide (col. 2, lines 7-20), so it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used nylon-6,6 as one of the polyamides of the blend of polyamides taught by Campbell et al. as discussed above in regard to claim 1.

In regard to claim 4, Campbell et al. teach that the flame retardants (the phosphoramidate flame retardant and the adjunct flame retardant) are non-halogenated because Campbell et al. do not require that the flame retardants are non-halogenated (see, for example, col. 1, lines 44-65 and col. 13, line 8-col. 14, line 64).

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In regard to claim 6, as discussed above in regard to claim 1, Campbell et al. teach that the composition of Campbell et al. is suitable for use as a housing for various electronic devices such as a monitor housing.

In further regard to claim 6, Campbell et al. teach the casing as discussed above in regard to claim 1, and that the casing is suitable for use as housings for various electronic devices (col. 17, line 58-col. 8, line 21) such as a television monitor housing and television backplates (col. 17, line 65-col. 18, line 2) and that television monitors include cathode ray tubes (col. 17, line 65-67), it would have been obvious to one of ordinary skill in the art at the time the invention was made to have housed a television monitor, since the composition of Campbell et al. is suitable for use as a housing for various electronic devices such as a television monitor housing as taught by Campbell et al.

11. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell et al. (USPN 6,228,912), as evidenced by Christ et al. (USPN 5,567,797) as applied to claims 1 and 4 above, and in view of Nishihara (USPN 6,790,887).

Campbell et al. (and the additional evidence provided by Christ et al. USPN 5,567,797) teach the casing as discussed above in regard to claims 1 and 4. Campbell et al. teach that the composition may comprise a blend of polycarbonate and polyamides (col. 2, lines 3-21).

Campbell et al. fails to teach that the any of the flame retardants of Campbell et al. (the phosphoramidate flame retardant and the adjunct flame retardant) are melamine cyanurate.

Nishihara, however, disclose a flame resistant composition that comprises polycarbonate, polyamide and a flame retardant (col. 8, lines 32-43), and that melamine cyanurate is a preferred

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flame retardant (col. 18, line 66-col. 19, line 11 and col. 27, lines 5-27). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used melamine cyanurate as the adjunct flame retardant of Nishihara since melamine cyanurate is a suitable flame retardant for flame resistant thermoplastic compositions as taught by Nishihara.

Response to Arguments

12. Applicant's arguments presented in the Amendment filed November 4, 2009 in regard to the 35 U.S.C. 112, first and second paragraph, rejections have been fully considered but are not persuasive.

Note that the basis of the 35 U.S.C. 112, second paragraph, rejection stating "that which 'the solution viscosity' is intended to refer cannot be ascertained" has been withdrawn due to Applicant's amendment.

In regard to the new matter rejection made of record in this Office Action, Applicant states (on page 4 of Amdt.) that it is clear from page 2, lines 22-26 of Applicant's specification that the maximum value applies to the mixture of polyamides, but this passage of the specification does not appear to state or imply this: the maximum value appears to apply to each individual polyamide of the mixture.

The European Standard ISO 307 that Applicant has included in the Amendment filed November 4, 2009 supports the rejections regarding the inconsistency between the units claimed and the claimed property. Applicant appears to equate solution viscosity with viscosity number (page 3 of Amendment filed November 4, 2009, last full paragraph), but page 6 of the standard shows that these two properties are different properties: the formula for solution viscosity is

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directly below the formula for viscosity number. Applicant argues that viscosity number has the units that are recited, but the claim does not claim viscosity number: it claims solution viscosity. The ISO Standard shows that viscosity number is a different property from solution viscosity (page 6: the formula for solution viscosity is directly below the formula for viscosity number); so by reciting solution viscosity, Applicant is reciting a different property from viscosity number (which has the claimed units of ml/g). The units that are recited do not match up with the property that is recited for the reasons provided above. Clarification and/or correction is required.

13. Applicant's arguments presented in the Amendment filed November 4, 2009 in regard to the 35 U.S.C. 103 rejection have been fully considered but are not persuasive.

Campbell et al. (USPN 6,228,912) (and the additional evidence provided by Christ et al. USPN 5,567,797) teach the claimed article for the reasons of record in the updated rejection made of record in this Office Action. Applicant's statements regarding the conversion of the relative solution viscosities of Christ et al. into "a solution viscosity of 158 ml/g" (paragraph beginning "U.S. 5,567,797..." on page 4 of Amdt.) is not supported. The arguments of counsel cannot take the place of evidence in the record. MPEP 2145 I. What is the math behind this conversion and what is the basis for conversion of relative solution viscosity into "solution viscosity" having units of "ml/g"? Note the 35 U.S.C. 112, first and second paragraph, rejections in regard to the units claimed ("ml/g") and the claimed property.

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Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter B. Aughenbaugh whose telephone number is (571) 272-1488. The examiner can normally be reached on Monday-Thursday from 9:00am to 7:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye, can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Walter B Aughenbaugh /

Examiner, Art Unit 1794

12/06/09